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Liquid-crystalline CuII and PdII complexes with nonmesogenic ferrocene-containing β-aminovinyl ketone

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Abstract

New liquid-crystalline heteropolynuclear complexes L2M (M = Cu2+ (2a), Pd2+ (2b)) were synthesized by the reactions of C5H5FeC5H4-C6H4NH-C2H2-(CO)-C6H4OC12H25 (1, LH) with copper(II) and palladium(II) acetates. Compound 2b was found to possess monotropic nematic and smectic phases; 2a exhibits the monotropic nematic phase and a phenomenon of "double melting." The compositions and structures of compounds 1 and 2a,b were established by elemental analysis, 1H and 13C NMR, ESR, and IR spectroscopy.

Keywords

Coordination compounds, Ferrocene, Liquid crystals, Metallomesogens